



UNITED STATES DEPARTMENT OF COMMERCE
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BENNETT, EXAMINER

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ART UNIT	PAPER NUMBER
3404	2

DATE MAILED: 08/13/93

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

- ☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.
- A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-20 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-6, 9-13, 16-20 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

Art Unit: 3404

1. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

2. Claims 1,3,4,5,9,10,11,16 and 17 are rejected under 35 U.S.C. § 103 as being unpatentable over West in view of Ripka et al. West discloses applicants invention substantially as claimed with the exception of use of the use of a multi pressure burner with a radiant heater. Ripka et al teaches a radiant burner that has a fuel control system for variable gas flow(col 2 line 59-66). It would have been obvious to have modified the multi-pressure burner of West to have substituted a radiant burner for

Art Unit: 3404

the conventional burner for the purpose of providing space heating in large buildings. In regard to the claimed glow plug ignitor-sensor recited in claims 10 and 17, use of these devices in combustion control is well known in the art and it would have been obvious to have provided the radiant burner of West as modified by Ripka et al to have provided a glow plug ignitor-sensor for the purpose of combining the ignitor and sensor into one element and reduce the control system complexity.

3. Claims 2, 12, 18 and 20 are rejected under 35 U.S.C. § 103 as being unpatentable over West in view of Ripka as applied to claims 1 and 11 above, and further in view of Johnson. Johnson teaches the use of multi-level output of a radiant burner (col 4 lines 13-21). It would have been obvious to have modified the radiant burner of West as modified by Ripka, to have provided a multi-level burner output for the purpose of more efficiently heating the controlled space.

4. Claims 6 and 13 rejected under 35 U.S.C. § 103 as being unpatentable over West in view of Ripka et al as applied to claims 1 and 11 above, and further in view of Cremers. Cremers teaches a radiant burner that has a venturi section 10 with the burner tube. It would have been obvious to have modified the radiant burner of West as modified by Ripka et al to have provided the burner with a venturi section for the purpose of

Serial Number: 08/077558

-4-

Art Unit: 3404

providing efficient combustion as taught in Cremers(col 3 lines 10-23).

5. Claim 19 is rejected under 35 U.S.C. § 103 as being unpatentable over West in view of Ripka et al and Johnson as applied to claims 18 above, and further in view of Cremers. Cremers teaches a radiant burner that has a venturi section 10 with the burner tube. It would have been obvious to have modified the radiant burner of West as modified by Ripka et al to have provided the burner with a venturi section for the purpose of providing efficient combustion as taught in Cremers(col 3 lines 10-23).

6. Claims 7,8,14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Bennett whose telephone number is (703) 308-2639.

hab
August 8, 1993

HENRY A. BENNETT
PRIMARY EXAMINER
ART UNIT 344

